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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,967	05/29/2001	Michael Gerard Gallagher	MP/W-21927/A/AC 536	7387

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EXAMINER

HRUSKOI, PETER A

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 04/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,967

Applicant(s)

GALLAGHER ET AL.

Examiner

Peter A. Hruskoci

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson in view of Pickering et al.. Pearson disclose (see col. 3 line 10 through col. 9 line 13) a process for combining polymeric particles with dispersed particulate solids substantially as claimed. The claims differ from Pearson by reciting that the particles have a specific intrinsic viscosity. Pickering et al. disclose (see col. 6 line 9 through col. 8 line 45) that it is known in the art to utilize polymer flocculants having recited intrinsic viscosity to aid in dewatering mineral suspensions pumped through a flow line. It would have been obvious to one skilled in the art to modify the process of Pearson by utilizing polymeric particles having the recited intrinsic viscosity in view of the teachings of Pickering et al., to aid in dewatering the aqueous fluid. The specific particle size of the polymers and dispersed solids, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific aqueous fluid treated and results desired, absent a sufficient showing of unexpected results.
3. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson in view of Pickering et al. as above, and further in view of Avotins et al.. The

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claims differ from the references as applied above by reciting that the polymer particles are in the form of a specific aqueous dispersion comprising an inorganic salt. Avotins et al. disclose (see col. 3 line 65 through col. 6 line 37) that it is known in the art to utilize a mixture of polymers and inorganic salts to aid in separating solids from Bayer process streams. It would have been obvious to one skilled in the art to modify the references applied above by utilizing the recited dispersion in view of the teachings of Avotins et al. , to aid in separating solids from the aqueous fluid. The specific % by weight of inorganic salt in the dispersion, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific aqueous fluid treated and results desired, absent a sufficient showing of unexpected results.

4. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson in view of Pickering et al. as above, and further in view of Duan. It is noted that Pearson as applied above disclose the use of a vortex in a mixing chamber to aid in mixing the polymeric particles with the aqueous fluid. The claims differ from the references as applied above by reciting that a portion of the suspension flows into the mixing chamber where it is combined with a treatment chemical, and then returned to the flow line. Duan disclose (see col. 5 line 5 through col. 6 line 9) that it is known in the art to divide a feed stream into two separate streams, treat one of the streams with a metal ion precipitating agent, and recombine the streams for further mixing and separation. It would have been

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obvious to one skilled in the art to modify the references applied above by mixing a portion of the suspension with the treatment chemical and returning the mixed portion to the flow line in view of the teachings of Duan, to aid in precipitating metal ions in the suspension. The specific particle size of the treatment chemical, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific aqueous fluid treated and results desired, absent a sufficient showing of unexpected results.

5. Applicants allege that Pearson clearly does not recognize or suggest the importance of using a polymer having an intrinsic viscosity greater than 3 dl/g as required by claim 1. It would appear that the water soluble polymers of Pearson having a molecular weight of ten million would have an intrinsic viscosity greater than 3 dl/g. Furthermore, applicants have not supplied sufficient factual evidence to support the above allegation.
6. Applicants argue that Pearson does not teach a specific addition point for the polymer as in the instant process. Applicants are directed to col. 8 lines 38-49 of Pearson which teaches the use of a centrifugal pump to mix the polymer with the dispersion.
7. Applicants argue that the polymers of Pearson appear to function as a binder, rather than a flocculant, and there is no basis for combining the teachings for flocculation in Pickering et al. with the red mud stabilization process taught in Pearson. It is submitted that the water soluble polymers utilized in Pearson and Pickering et al. appear to be

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patentably indistinguishable from the polymer recited in claim 1. Furthermore, it is submitted that the process recited in claim 1 fails to exclude the use of the polymer as a flocculant.

8. Applicants arguments concerning Avotins et al. and Duan are based on the propriety of the combination of Pearson and Pickering et al. This combination is deemed properly applied for reasons stated above.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (703) 308-

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3839. The examiner can normally be reached on Monday through Friday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached on (703) 308-1972. The fax phone number for this Group is (703) 872-9310 (non-after finals) and 703-872-9311 after finals.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


Peter A. Hruskoci
Primary Examiner
Art Unit 1724

P. Hruskoci
April 28, 2003